WHAT IS CLAIMED IS:

1. A composite design optimization process for designing a laminate part comprising:
generating a globally optimized 3-D ply definition for a laminate part;
optimizing the 3-D ply definition;
subsequently generating a feedback signal providing tow specific information; and
modifying the 3-D ply definition responsive to the feedback signal.

2. The process as recited in claim 1, wherein optimizing step is performed by a structural optimizer.

3. The process as recited in claim 2, wherein the structural optimizer includes a lagrange optimizer module.

4. The process as recited in claims 2, wherein the structural optimizer includes a stacking sequence realizer.

5. The process as recited in claim 1, wherein the optimizing step is performed by a design optimizer module.

6. The process as recited in claim 5, wherein the structural optimizer includes a lagrange optimizer module.

7. The process as recited in claims 5, wherein the structural optimizer includes a stacking sequence realizer.

8. A laminate part constructed using a composite design optimization process for designing a laminate part comprising steps for:

generating a globally optimized 3-D ply definition for a laminate part;

optimizing the 3-D ply definition;

subsequently generating a feedback signal providing tow specific information; and

modifying the 3-D ply definition responsive to the feedback signal.

9. The laminate part as recited in claim 8, wherein optimizing step is performed by a structural optimizer.

10. The laminate part as recited in claim 9, wherein the structural optimizer includes a lagrange optimizer module.

11. The laminate part as recited in claims 9, wherein the structural optimizer includes a stacking sequence realizer.

12. The laminate part as recited in claim 8, wherein the optimizing step is performed by a design optimizer module.

13. The laminate part as recited in claim 12, wherein the structural optimizer includes a lagrange optimizer module.

14. The laminate part as recited in claims 12, wherein the structural optimizer includes a stacking sequence realizer.

15. A composite design optimization system used in designing a laminate part, comprising:

means for generating a globally optimized 3-D ply definition for a laminate part;

means for optimizing the 3-D ply definition;

means for subsequently generating a feedback signal providing tow specific information; and

means for modifying the 3-D ply definition responsive to the feedback signal.

16. The system as recited in claim 15, wherein the optimizing means comprises a structural optimizer module.

17. The system as recited in claim 16, wherein the structural optimizer includes a means for performing a lagrange optimization.

18. The system as recited in claims 16, wherein the structural optimizer includes a stacking sequence realizer.

19. The system as recited in claim 15, wherein the means for optimizing comprises a design optimizer module.

20. The system as recited in claim 19, wherein the structural optimizer module includes a means for performing a lagrange optimization.

21. The system as recited in claims 19, wherein the structural optimizer includes a stacking sequence realizer.

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